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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/796,681 | 03/09/2004 | Karsten Hackbarth | H 5265 | 2641 |
| 423 | 7590 | 11/01/2007 | EXAMINER | |
| HENKEL CORPORATION 1001 TROUT BROOK CROSSING ROCKY HILL, CT 06067 | | | CHEUNG, WILLIAM K | |
| | | ART UNIT | PAPER NUMBER | |
| | | 1796 | | |
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

| | | | |
|------------------------------|------------------------|---------------------|--|
| Office Action Summary | Application No. | Applicant(s) | |
| | 10/796,681 | HACKBARTH ET AL. | |
| | Examiner | Art Unit | |
| | William K. Cheung | 1796 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 08 August 2007.
- 2a) This action is **FINAL**. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-7,28 and 31-39 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1-7,28 and 31-39 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

| | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____ | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. In view of the amendment filed August 8, 2007, new claim 39 has been added.

Claims 1-7, 28, 31-39 are pending.

2. In view of the amendment filed August 8, 2007, the rejection of Claim 36 under 35 U.S.C. 112, second paragraph, is withdrawn.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claims 1-7, 28, 31-35, 37-39 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Claim 1 (line 17-19), claim 28 (line 17-19), the recitations of "wherein 2.0 to 9.7 wt. %, based upon total coating material, of the at least one low molecular weight

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(meth)acrylate is selected from difunctional, trifunctional and polyfunctional (meth)acrylate compounds" are considered "new matter" because the claimed subject matter was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Applicants are required to file an amendment to remove the new matter introduced.

Applicant's arguments filed August 8, 2007 have been fully considered but they are not persuasive. Applicants argue that the claimed concentration is supported by Table of page 8 of the applicants' response filed August 8, 2007. However, applicants fail to recognize that the Table in page 8 does not disclose any (meth)acrylate compound; the table only disclose acrylate compounds. Therefore, the concentration teachings of acrylate compounds as taught in the Table does not adequately provide the support of the concentration of the (meth)acrylate compounds as claimed.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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6. Claims 1-3 and 5 are rejected under 35 U.S.C. 102(b) as being anticipated by Shustack (US Pat. 5,128,391) for the reasons adequately set forth from paragraph 8 of non-final office of February 8, 2007.

The prior art to Shustack (abstract) relates to an extensible and pasteurizable radiation curable coating for metal. The ingredients in the coatings are

- (a) 15-75 wt% of ethylenically unsaturated monomer as defined by a general formula disclosed at column 2, line 45-60, and column 5, line 29-65, which meets the instantly claimed component (b);
- (b) 10-80 wt% of an oligomer component that is a mixture of (i) at least one of an urethane acrylate oligomer or urethane methacrylate oligomer, and (ii) at least one of an epoxy acrylate oligomer or epoxy methacrylate oligomer described at column 2, line 61-66, and column 6, line 5-26, which meets the instantly claimed component (a); and
- (c) 0.1-10 wt% of an organofunctional silane adhesion promoter described at column 2, line 67-68, column 8, line 61-68, and column 9, line 1-40, and other additives mentioned including photoinitiator, dyes and pigment (column 4, line 16-28), which meets the instantly claimed component (d).

Shustack further teaches that the numerous other mono-multifunctional monomers, which are compatible with the basic composition may be included therein, in an amount of up 30 wt% (column 12, line 11-21), which meets the instantly claimed component (c).

In terms of the limitation of the viscosity of the coating material in Claims 1-2, as discussed above, the coating composition prepared by Shustack is substantially identical to the claimed composition. Therefore, it is the examiner's position to believe that the prior art composition must inherently possess the same viscosity. Since the PTO does not have proper means to conduct experiments, the burden of proof is now shifted to the applicant to establish an unobviousness difference. *In re Fitzgerald*, 205 USPQ 594 (CCPA 1980).

As to Claim 3, the description of an organofunctional silane material used, as an adhesive promoter, in an amount of 0.1-10 wt% can be seen at column 4, line 49-67. Examples of such organofunctional silane compound can be found at column 9, line 1-35.

As to Claim 5, the rejection made for Claim 1, component (d) described above in this Office Action would be applied herein to reject Claim 5.

In sum, all the limitations of Claims 1-3 and 5 are fully met by Shustack's disclosure.

Applicant's arguments filed August 8, 2007 have been fully considered but they are not persuasive. Applicants argue that Shustack does not disclose any (meth)acrylate di-functional or tri-functional compounds. However, the examiner disagrees because Shustack (col. 12, line 18-19) clearly disclose the use of multi-functional (meth)acrylates.

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However, in view of the 112 rejection set forth because of the "new matter" issues. The rationale for rejection set forth from the office action of February 8, 2007 is proper and adequate.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

8. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Shustack (US Pat. 5,128,391) in view of Shustack (US Pat. 5,128,387) for the reasons adequately set forth from paragraph 10 of non-final office of February 8, 2007.

The prior art to Shustack' 391 is adequately presented in paragraph 6 previously in this Office Action and is incorporated herein by reference. Shustack' 391 does not

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include phosphoric or phosphoric methacrylate compound in the coating composition.

Shustack' 387 discloses an extensible and pasteurizable radiation curable coating for metal with very similar ingredients (column 2, line 25-45). Shustack' 387 teaches that a methacrylated phosphoric acid is included in the coating composition in order to promoter adhesion of the coating material (column 18, Claim 11, component (c)).

Accordingly, it would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the methacrylated phosphoric acid, as taught by Shustack' 387, in Shustack' 391's coating composition formulation, in order to promote the adhesion of the coating material, as taught expressly by Shustack' 387.

Applicant's arguments filed August 8, 2007 have been fully considered but they are not persuasive. In view of the 112 rejection set forth because of the "new matter" issues. The rationale for rejection set forth from the office action of February 8, 2007 is proper and adequate.

9. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Shustack (US Pat. 5,128,391) in view of Razavi (US Pat. 5,629,365) for the reasons adequately set forth from paragraph 11 of non-final office of February 8, 2007.

The prior art to Shustack' 391 is adequately presented in paragraph 4 previously in this Office Action and is incorporated herein by reference. Shustack' 391 does not include a biocide in the coating composition. The prior art to Razavi relates to an UV-

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absorbing polymer latex as protective coating comprising methacrylate functionalized benzotriazole. Razavi teaches that the invented latex can be enhanced by a variety of other common coating additives including biocides (column 5, line 26-31). Thus, based on the common use of this additive, biocide, as taught by Razavi, it would have been obvious to those skilled in the art to incorporate such additive in the composition of Shustack' 391 in order to enhance the coating composition of Shustack' 391, and thus to arrive at the instant Claim 6.

Applicant's arguments filed August 8, 2007 have been fully considered but they are not persuasive. In view of the 112 rejection set forth because of the "new matter" issues. The rationale for rejection set forth from the office action of February 8, 2007 is proper and adequate.

10. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Shustack (US Pat. 5,128,391) in view of Nagasawa et al. (US Pat. 4,205,018) for the reasons adequately set forth from paragraph 12 of non-final office of February 8, 2007.

The prior art to Shustack' 391 is adequately presented in paragraph 4 previously in this Office Action and is incorporated herein by reference. Shustack' 391 does not include disperse silica or disperse aluminum oxide in the coating composition. The prior art to Nagasawa et al. discloses a resin coating composition comprising polymerizable oligomers (column 7, line 22-42). Nagasawa et al. teach that a finely divided powder of

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silica may be used as a thixotropic agent (column 12, line 3-5). Accordingly, it would have been obvious to one having ordinary skill in the art at the time the invention was made to employ such finely divided powder of silica, as taught by Nagasawa et al., in Shustack's coating composition formulation because Shustack teaches that other additives are preferably incorporated in the composition to impart desirable properties (column 3, line 3-4).

Applicant's arguments filed August 8, 2007 have been fully considered but they are not persuasive. In view of the 112 rejection set forth because of the "new matter" issues. The rationale for rejection set forth from the office action of February 8, 2007 is proper and adequate.

11. Claim 28, 31-35, 37-39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shustack (US Pat. 5,128,391) for the reasons adequately set forth from paragraph 13 of non-final office of non-final office of February 8, 2007.

Comparison between the instantly claimed ranges and that of the prior art is tabled as following.

| Component | Instantly Claimed Range | Prior Art Range | Shustack (US 5,128,391) |
|-----------|-------------------------|-----------------|-------------------------|
| a | 45 – 85 wt% | 25 – 50 wt% | Column 4, line 49 |
| b | 10 – 60 wt% | 40 – 60 wt% | Column 4, line 37 |
| c | 0.5 – 10 wt% | Up to 30 wt% | Column 12, line 14 |
| d | 0.5 – 15 wt% | 3 wt% | Column 14, Example I |
| e | Up to 20 wt% | 0.1 – 10 wt% | Column 2, line 67 |

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The prior art range, which either overlaps, is within or covers the instantly claimed range for the components a-e, respectively, is seen to render obvious the ranges as instantly claimed.

Applicant's arguments filed August 8, 2007 have been fully considered but they are not persuasive. In view of the 112 rejection set forth because of the "new matter" issues. The rationale for rejection set forth from the office action of February 8, 2007 is proper and adequate.

Regarding applicants' argument that the previous office action (February 8, 2007) fails to address the limitations of claims 31-35, 37-38, applicants fail to recognize that the 112 (new matter) rejection of claim 28 includes the rejection of claims 31-35, 37-38. Therefore, in view of the new matter 112 rejection set forth, the examiner has a reasonable basis to believe that the rationale set forth from the earlier office action is adequate for maintaining the instant 103 rejection.

Further, regarding applicants' argument that Shustack does not teach the use of (meth)acrylate compounds that are difunctional, trifunctional or polyfunctional, the examiner disagrees because Shustack (col. 8, line 66; col. 12 ,line 18-19) clearly disclose the use of polyfunctional (meth)acrylates.

Conclusion

12. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to William K Cheung whose telephone number is (571) 272-1097. The examiner can normally be reached on Monday-Friday 9:00AM to 2:00PM; 4:00PM to 8:00PM.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David WU can be reached on (571) 272-1114. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



William K. Cheung, Ph. D.

Primary Patent Examiner

October 25, 2007

WILLIAM K. CHEUNG
PRIMARY EXAMINER